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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Weixiao Liu

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EXAMINER

RUSSELL, WANDA Z

ART UNIT

PAPER NUMBER

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/560,480	Applicant(s) LIU ET AL.	
	Examiner WANDA Z. RUSSELL	Art Unit 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 11-37 is/are rejected.
- 7) ☒ Claim(s) 4-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Appeal Brief filed on 3/23/2009, PROSECUTION IS HEREBY REOPENED. **The cited Tanaka reference in last Office Action is now incorporated in 103 rejection**, set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Seema S. Rao/

Supervisory Patent Examiner, Art Unit 2416

Claim Objections (same as in last Office Action)

For the amended claim 1, the original word “for” on line 8 (second line from the end), before the word “detecting”, was missing and should be returned and marked strikethrough. The alternative way is removing the underline for the word “for” on line 5 before the word “processing”.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-3** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jun et al. (U.S. Patent 6,810,084 B1), in view of Tanaka et al. (US Patent No. 7,280,475 B2).

For **claim 1**, Jun et al. teach an apparatus (Fig. 5) comprising:

a Null-Packet Detector (see 120 in Fig. 5) for processing a stream of fixed-length packets (data segments each include a 188-byte transport packet, refer to col. 5, lines 10-11) received by said apparatus (115 is a receiver of the encoded signals) as digitally encoded signals (MPEG data, refer to col. 5, line 11) and having multiple packet types (null packets, refer to abstract, line 12, & col. 5, lines 40-43. Based on the specification of the application, the multiple packet types mean data & null packets. See P. 10 of applicant's specification, or applicant's publication [0054]), each packet including a

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header portion and a data portion (it is well-known that each packet includes a header portion and a data portion, as in the cited Fu reference, see Fig. 1), the header portion containing a sync byte (it is well-known that header portion contains a sync byte, as in the cited Fu reference, see Fig. 1),

wherein said Null-Packet Detector processes the stream by detecting whether a received packet is a null-packet (a null packet detector for checking whether the formatted data include the null packets, refer to col. 3, lines 58-60) and for identifying the location of the sync-byte of a detected null-packet (when the formatted data include the null packets, outputting skip pulses and training sync signals, refer to col. 3, lines 60-61. "When" is the location).

However, Jun et al. fail to specifically teach processing a stream of packets received by said apparatus.

Tanaka et al. teach processing a stream of packets received by said apparatus (see 507 and 508 in Fig. 17, and col. 19, lines 41-48 for 507 and 508 descriptions).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. to obtain the invention as specified, so that the video data obtaining unit outputs the received AV data packets to the null packet detection unit (see Tanaka, col. 19, lines 46-48).

For **claim 2**, Jun et al. and Tanaka et al. teach everything claimed as applied above. In addition, Jun et al. teach the apparatus of claim 1, wherein the Null-Packet Detector further generates a Null_flag signal (when the formatted data include the null packets, outputting skip pulses, refer to col. 3, lines 60-61. The skip pulses are null-flag

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signals) to indicate whether a received packet is a null-packet (a null packet detector for checking whether the formatted data include the null packets, refer to col. 3, lines 58-60) and generates a Null_sync signal (training sync signals, refer to col. 3, line 61) to indicate the location of the sync-byte of a detected null-packet. (when the formatted data include the null packets, outputting skip pulses and training sync signals, refer to col. 3, lines 60-61).

For **claim 3**, Jun et al. and Tanaka et al. teach everything claimed as applied above. In addition, Jun et al. teach the apparatus of claim 2, further comprising a circuit (see 145-Fig. 5) adapted to insert a predetermined sync-byte value into the sync-byte position indicated by the Null_sync signal (see Fig. 5).

3. **Claims 11-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jun et al. (U.S. Patent 6,810,084 B1), in view of Tanaka et al. (US Patent No. 7,280,475 B2) and Hashimoto et al. (U.S. Patent 6788654 B1).

For **claim 11**, Jun et al. and Tanaka et al. teach everything claimed as applied above.

However, they fail to specifically teach the apparatus of claim 2, wherein the Null-Packet Detector determines whether a received packet is a null-packet by comparing contents of the header portion of the received packet with a first predetermined value.

Hashimoto et al. teach the apparatus of claim 2, wherein the Null-Packet Detector determines whether a received packet is a null-packet by comparing contents of the header portion of the received packet with a first predetermined value (comparing said bit error rate with a predetermined threshold value to judge ... the null packet is a

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packet in which all bits except for first synchronizing bytes (47HEX) are 1, refer to col. 2, lines 40-43 & 58-59. The fact of all bits 1 is a first value).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. and Hashimoto et al. to obtain the invention as specified, to provide an improvement in effectiveness of the detection system.

For **claim 12**, Jun et al., Tanaka et al., and Hashimoto et al. teach everything claimed as applied above.

However, they fail to specifically teach the apparatus of claim 11, wherein the Null-Packet Detector determines whether a received packet is a null-packet by further comparing contents of the data portion of the received packet with a second predetermined value.

Hashimoto et al. teach the apparatus of claim 11, wherein the Null-Packet Detector determines whether a received packet is a null-packet by further comparing contents of the data portion of the received packet with a second predetermined value (comparing said bit error rate with a predetermined threshold value to judge ... the null packet is a packet in which all bits except for first synchronizing bytes (47HEX) are 1, refer to col. 2, lines 40-43 & 58-59. The fact of not all bits 1 is a second value).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. and Hashimoto et al. to obtain the invention as specified, to provide an improvement in effectiveness of the detection system.

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4. **Claims 13-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jun et al. (U.S. Patent 6,810,084 B1), in view of Tanaka et al. (US Patent No. 7,280,475 B2) and Chien et al. (Pub No. US 2003/0115345 A1).

For **claim 13**, Jun et al. teach an apparatus (Fig. 5) comprising:

a Syndrome Detector for processing a stream of fixed-length packets (data segments each include a 188-byte transport packet, refer to col. 5, lines 10-11) received by said apparatus (115 is a receiver of the encoded signals) as digitally encoded signals (MPEG data, refer to col. 5, line 11) and having multiple packet types (null packets, refer to abstract, line 12, & col. 5, lines 40-43. Based on the specification of the application, the multiple packet types mean data & null packets. See P. 10, or publication [0054]), each packet including a header portion and a data portion (it is well-known that each packet includes a header portion and a data portion, as in the cited Fu reference, see Fig. 1),

a Null-Packet Detector (120 in Fig. 5) adapted to detect whether a received packet is a null-packet (a null packet detector for checking whether the formatted data include the null packets, refer to col. 3, lines 58-60), and adapted to identify the location of the sync-byte of a detected null-packet (when the formatted data include the null packets, outputting skip pulses and training sync signals, refer to col. 3, lines 60-61. "When" is the location), and

an MPEG Sync-Byte Re-insertion circuit for inserting a predetermined value into the sync-byte location indicated by an MPEG synchronization signal (16-Fig. 5).

However, Jun et al. fail to specifically teach processing a stream of packets received by said apparatus.

Tanaka et al. teach processing a stream of packets received by said apparatus (see 507 and 508 in Fig. 17, and col. 19, lines 41-48 for 507 and 508 descriptions).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. to obtain the invention as specified, so that the video data obtaining unit outputs the received AV data packets to the null packet detection unit (see Tanaka , col. 19, lines 46-48).

Further, Jun et al. in view of Tanaka et al. fail to specifically teach the header portion containing a checksum-encoded sync byte; a Syndrome Detector for detecting the checksum-encoded sync-byte and for generating a Sync_flag signal to indicate the location of the checksum-encoded sync-byte; and an MPEG Sync-Byte Re-insertion circuit for inserting a predetermined value into the sync-byte location indicated by an MPEG synchronization signal.

Chien et al. teach the header portion containing a checksum-encoded sync byte (perform the IP header checksum check to be compliant to the TCP/IP standard and to allow the early detection of the Cipher key out-of-sync situation, refer to [0076], lines 2-4);

a Syndrome Detector (IP header Checksum Check, refer to [0076], line 1, implies there is a Syndrome Detector) for detecting the checksum-encoded sync-byte (perform the IP header checksum check to be compliant to the TCP/IP standard and to allow the early detection of the Cipher key out-of-sync situation, refer to [0076], lines 2-4) and for

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generating a Sync_flag signal to indicate the location of the checksum-encoded sync-byte (If the checksum check fails, the base drops the packet and processes the next packet, refer to [0076], lines 9-10, implies generating a Sync_flag signal to indicate the location of the checksum-encoded sync-byte).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. and Hashimoto et al. to obtain the invention as specified, to provide an improvement in effectiveness of the detection system.

For **claim 14**, Jun et al., Tanaka et al., and Chien et al. teach everything claimed as applied above. In addition, Jun et al. teach the apparatus of claim 13, wherein the Null-Packet Detector is further adapted to output a Null_sync signal to indicate the location of the sync-byte of a detected null-packet (when the formatted data include the null packets, outputting skip pulses and training sync signals, refer to col. 3, lines 60-61. "When" is the location).

For **claim 15**, Jun et al., Tanaka et al., and Chien et al. teach everything claimed as applied above. In addition, Jun et al. teach the apparatus of claim 14, further comprising:

a multiplexor (145-Fig. 5), wherein the Sync_flag output of the Syndrome Detector (120-Fig. 5) and the Null_sync output of the Null-Packet Detector are multiplexed (Fig. 5) and are alternatively output by the multiplexor, to be used by the MPEG Sync-Byte Re-insertion circuit (16-Fig. 5), according to whether null packets have been detected.

For **claim 16**, Jun et al., Tanaka et al., and Chien et al. teach everything claimed as applied above. In addition, Jun et al. teach the apparatus of claim 15, further comprising a decisional logic circuit operatively connected to the multiplexor and adapted to control the multiplexor so that when the Null-Packet Detector detects null packets, the Null_sync output of the Null Packet Detector is output by the multiplexor to be used as the MPEG synchronization signal by the MPEG Sync-Byte Re-insertion circuit (Fig. 5).

For **claim 17**, Jun et al., Tanaka et al., and Chien et al. teach everything claimed as applied above. In addition, Jun et al. teach the apparatus of claim 14 adapted so that when null packets are detected, the Null_sync output of the Null Packet detector is used as the MPEG synchronization signal used by the MPEG Sync Re-insertion circuit (Fig. 5).

For **claim 18**, Jun et al., Tanaka et al., and Chien et al. teach everything claimed as applied above. In addition, Jun et al. teach the apparatus of claim 17, wherein when null packets are not detected, the Null_sync output of the Null Packet detector is not used as the MPEG synchronization signal used by the MPEG Sync Re-insertion circuit (Fig. 6, and N_n is from 1 to N_n , refer to col. 6, line 34. When there is no null packet, the training sync signals will indicate it and it will not be used as the MPEG synchronization signal used by the MPEG Sync Re-insertion circuit).

For **claim 19**, Jun et al., Tanaka et al., and Chien et al. teach everything claimed as applied above. In addition, Jun et al. teach the apparatus of claim 18, wherein when null packets are not detected, the Sync_flag output by the Syndrome Detector (120-Fig.

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5) is used as the MPEG synchronization signal used by the MPEG Sync Re-insertion circuit (Fig. 5).

5. **Claims 20-37** are rejected under 35 U.S.C. 103(a) as being unpatentable over Jun et al. (U.S. Patent 6,810,084 B1), in view of Tanaka et al. (US Patent No. 7,280,475 B2), Chien et al. (Pub No. US 2003/0115345 A1), and Hashimoto et al. (U.S. Patent 6,788,654 B1).

For **claim 20**, Jun et al. teach a method comprising:

processing a stream of fixed length packets (data segments each include a 188-byte transport packet, refer to col. 5, lines 10-11) received by said method as digitally encoded signal (115 is a receiver of the encoded signals).

However, Jun et al. fail to specifically teach processing a stream of packets received by said apparatus.

Tanaka et al. teach processing a stream of packets received by said apparatus (see 507 and 508 in Fig. 17, and col. 19, lines 41-48 for 507 and 508 descriptions).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. to obtain the invention as specified, so that the video data obtaining unit outputs the received AV data packets to the null packet detection unit (see Tanaka , col. 19, lines 46-48).

Further, they fail to specifically teach each packet containing a checksum-encoded sync-byte, the stream including a plurality of packets that each contain a first fixed bit pattern in the header portion of each packet, the method comprising: performing a first detection step of decoding the checksum in the stream to detect a

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checksum-encoded sync byte position candidate in the current one of the fixed length packets; and performing a second detection step to detect the first fixed bit pattern in the header portion of the current one of the fixed length packets; if the first fixed bit pattern is detected in the stream of fixed length packets, then identifying the sync-byte position of the sync-byte of each of the fixed length packets based upon the detection of the first fixed bit pattern; inserting a predetermined sync-byte value into the identified sync-byte position.

Chien et al. teach each packet containing a checksum-encoded sync-byte (header checksum, refer to [0076], line 1; and out of sync, refer to [0076], line 4), and performing a first detection step of decoding the checksum in the stream to detect a checksum-encoded sync byte position ([0076], lines 1-end).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. and Chien et al. to obtain the invention as specified to have the header Checksum check.

Further, they do not teach the stream including a plurality of packets that each contain a first fixed bit pattern in the header portion of each packet, and performing a second detection step to detect the first fixed bit pattern in the header portion of the current one of the fixed length packets.

Hashimoto et al. teach the stream including a plurality of packets that each contain a first fixed bit pattern in the header portion of each packet, and performing a second detection step to detect the first fixed bit pattern in the header portion of the current one of the fixed length packets (comparing said bit error rate with a

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predetermined threshold value to judge ... the null packet is a packet in which all bits except for first synchronizing bytes (47HEX) are 1, refer to col. 2, lines 40-43 & 58-59.

The fact of all bits 1 is a first value), and if the first fixed bit pattern is detected in the stream of fixed length packets, then identifying the sync-byte position of the sync-byte of each of the fixed length packets based upon the detection of the first fixed bit pattern; inserting a predetermined sync-byte value into the identified sync-byte position (the synchronizing code (hexadecimal 47) inserted in front bytes of respective TS packets, refer to col. 8, line 46 & lines 43-49).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al., Chien et al., and Hashimoto et al. to obtain the invention as specified, to provide an improvement in effectiveness of the detection system.

For **claim 21**, Jun et al., Tanaka et al., Chien et al., and Hashimoto et al. teach everything claimed as applied above. In addition, Jun et al. teach the method of claim 20, wherein the second detection step is performed only if a checksum-encoded sync byte position candidate is detected in the first detection step (data field sync signal, refer to col. 3, line 41-42; and a null packet detector for checking whether the formatted data include the null packets, refer to col. 3, lines 58-60).

For **claims 22-24, 28-30, and 32-33**, Jun et al., Tanaka et al., Chien et al., and Hashimoto et al. teach everything claimed as applied above. In addition, Jun et al. teach wherein while the first fixed bit pattern is not detected in the stream of fixed length

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packets (it is obvious that not all packets are null packets), and checking all incoming packets (Fig. 5).

However, they fail to teach inserting the predetermined sync-byte value.

Hashimoto et al. teach the inserting as described in col. 5, line 37.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al., Chien et al., and Hashimoto et al. to insert desired value into desired position.

For **claim 25**, it is a part of claim 20 regarding the first fixed bit pattern, therefore it is rejected for the same reason above.

For **claim 26**, Jun et al., Tanaka et al., Chien et al., and Hashimoto et al. teach everything claimed as applied above. In addition, Jun et al. teach wherein said header portions comprise transport headers of an MPEG-2 Transport Stream (Col. 2, line 28).

For **claim 27**, Jun et al., Tanaka et al., Chien et al., and Hashimoto et al. teach everything claimed as applied above. However, they fail to teach wherein the first fixed bit pattern is a predetermined pattern that includes at least one of the following MPEG-2 transport stream link header field values: payload_unit_start_indicator=`0`, PID=0x1FFF, transport scrambling control=`00`, and adaptation field=`01`.

Chien et al., teach wherein the first fixed bit pattern is a predetermined pattern that includes at least one of the following MPEG-2 transport stream link header field values: payload_unit_start_indicator=`0`, PID=0x1FFF, transport scrambling control=`00`, and adaptation field=`01` (Fig. 11).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Chien et al. and Hashimoto et al. to obtain the invention as specified, to define the header information.

For **claim 31**, Jun et al., Tanaka et al., Chien et al., and Hashimoto et al. teach everything claimed as applied above. However, they fail to teach the method of claim 28, wherein if neither of the first and second detection steps has identified a sync byte position, then no predetermined sync-byte value is inserted in the stream of fixed length packets.

Chien et al., teach wherein if neither of the first and second detection steps has identified a sync byte position, then no predetermined sync-byte value is inserted in the stream of fixed length packets (if the checksum fails, drop the packet, refer to [0071], lines 5-6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Chien et al. and Hashimoto et al. to obtain the invention as specified, to define the effectiveness of the detection system.

For **claims 34 and 35**, Jun et al. teach a method and apparatus (Fig. 5, and especially 120) comprising:

processing a stream of fixed length packets (data segments each include a 188-byte transport packet, refer to col. 5, lines 10-11) received by said apparatus (115 is a receiver of the encoded signals) as digitally encoded signals (MPEG data, refer to col. 5, line 11), the stream including a plurality of packets that each contain a first data

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pattern in a PID portion (it is well-known that packets contain a data pattern in a PID portion, see Fu citation, Fig. 1).

However, Jun et al. fail to specifically teach processing a stream of packets received by said apparatus.

Tanaka et al. teach processing a stream of packets received by said apparatus (see 507 and 508 in Fig. 17, and col. 19, lines 41-48 for 507 and 508 descriptions).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. to obtain the invention as specified, so that the video data obtaining unit outputs the received AV data packets to the null packet detection unit (see Tanaka , col. 19, lines 46-48).

Further, they fail to specifically teach each packet including a checksum-encoded sync-byte, and decoding the checksum in a preceding one of the fixed length packets to detect a checksum-encoded sync byte candidate in a current one of the fixed length packets, and if a checksum-encoded sync byte candidate is detected in the decoding step, then searching for the first data pattern in the PID portion of the current one of the fixed length packets.

Chien et al. teach each packet including a checksum-encoded sync-byte (header checksum, refer to [0076], line 1; and out of sync, refer to [0076], line 4), and decoding the checksum in a preceding one of the fixed length packets to detect a checksum-encoded sync byte candidate in a current one of the fixed length packets ([0076], lines 1-end).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al. and Chien et al. to obtain the invention as specified to have the header Checksum check.

Further, they do not teach if a checksum-encoded sync byte candidate is detected in the decoding step, then searching for the first data pattern in the PID portion of the current one of the fixed length packets.

Hashimoto et al. teach if a checksum-encoded sync byte candidate is detected in the decoding step, then searching for the first data pattern in the PID portion of the current one of the fixed length packets (comparing said bit error rate with a predetermined threshold value to judge ... the null packet is a packet in which all bits except for first synchronizing bytes (47HEX) are 1, refer to col. 2, lines 40-43 & 58-59. The fact of all bits 1 is a first value).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Jun et al. with Tanaka et al., Chien et al., and Hashimoto et al. to obtain the invention as specified, to provide an improvement in effectiveness of the detection system.

For **claims 36-37**, they are computer program product claims for a set-top-box and a television set (digital TV receiver, refer to Jun, col. 3, line 32), corresponding to method claim 20, therefore they are rejected for the same reason above.

Citation of Pertinent Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fu et al. (Pub No. US 2004/0136352 A1) disclose header portion contains a sync byte (102 and 106 in Fig. 1), and each packet includes a header portion and a data portion, (Fig. 3), and PID (Fig. 1).

Allowable Subject Matter

Claims 4-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments, filed on 3/23/2009 have been fully considered but are moot in view of the new ground(s) of rejection. **The cited Tanaka reference in the last Office Action is now incorporated in 103 rejection.**

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WANDA Z. RUSSELL whose telephone number is (571)270-1796. The examiner can normally be reached on Monday-Thursday 9:00-6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Seema S. Rao/
Supervisory Patent Examiner, Art
Unit 2416

/Wanda Z Russell/
Examiner, Art Unit 2416